NORTH CAROLINA OFFICE OF EMERGENCY MEDICAL SERVICES

DIVISION OF HEALTH SERVICE REGULATION • DEPARTMENT OF HEALTH & HUMAN SERVICES

Compiled Emergency Medical Technician-Intermediate (EMT-I) Educational Objectives

These educational objectives are taken from the 1998 Release of the United Stated Department of Transportation (US DOT) National Highway Traffic Safety Administration (NHTSA) EMT-Paramedic Course: National Standard Curriculum. The objectives have been selected to prepare the student to function as a North Carolina EMT-I, and are based upon the current scope of practice for EMT-Is as determined by the North Carolina Medical Board and North Carolina College of Emergency Physicians.

UNIT TERMINAL OBJECTIVE

1-1 At the completion of this unit, the paramedic student will understand his or her roles and responsibilities within an EMS system, and how these roles and responsibilities differ from other levels of providers.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-1.1 Define the following terms: (C-1)
- a. EMS Systems
- b. Licensure
- c. Certification
- d. Registration
- e. Profession
- f. Professionalism
- g. Health care professional
- h. Ethics
- I. Peer review
- j. Medical direction
- k. Protocols

1-1.2 Describe key historical events that influenced the development of national Emergency Medical Services (EMS) systems. (C-1)

1-1.3 Identify national groups important to the development, education, and implementation of EMS. (C-1)

1-1.4 Differentiate among the four nationally recognized levels of EMS training/ education, leading to licensure/ certification/ registration. (C-1)

1-1.5 Describe the attributes of a paramedic as a health care professional. (C-1)

1-1.6 Describe the recognized levels of EMS training/ education, leading to licensure/ certification in his or her state. (C-1)

1-1.7 Explain paramedic licensure/ certification, recertification, and reciprocity requirements in his or her state. (C-1)

1-1.8 Evaluate the importance of maintaining one's paramedic license/ certification. (C-3)

1-1.9 Describe the benefits of paramedic continuing education. (C-1)

1-1.10 List current state requirements for paramedic education in his/ her state. (C-1)

1-1.11 Discuss the role of national associations and of a national registry agency. (C-1)

1-1.12 Discuss current issues in his/ her state impacting EMS. (C-1)

1-1.13 Discuss the roles of various EMS standard setting agencies. (C-1)

1-1.14 Identify the standards (components) of an EMS System as defined by the National Highway Traffic Safety Administration. (C-1)

1-1.15 Describe how professionalism applies to the paramedic while on and off duty. (C-1)

1-1.16 Describe examples of professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork and diplomacy, respect, patient advocacy, and careful delivery of service. (C-1)

1-1.17 Provide examples of activities that constitute appropriate professional behavior for a paramedic. (C-2)

1-1.18 Describe the importance of quality EMS research to the future of EMS. (C-3)

1-1.19 Identify the benefits of paramedics teaching in their community. (C-1)

1-1.20 Describe what is meant by "citizen involvement in the EMS system." (C-1)

1-1.21 Analyze how the paramedic can benefit the health care system by supporting primary care to

patients in the out-of-hospital setting. (C-3)
1-1.22 List the primary and additional responsibilities of paramedics. (C-1)
1-1.23 Describe the role of the EMS physician in providing medical direction. (C-1)
1-1.24 Describe the benefits of medical direction, both on-line and off-line. (C-1)

1-1.25 Describe the process for the development of local policies and protocols. (C-2)
1-1.26 Provide examples of local protocols. (C-1)
1-1.27 Discuss prehospital and out-of-hospital care as an extension of the physician. (C-1)
1-1.28 Describe the relationship between a physician on the scene, the paramedic on the scene, and the EMS physician providing on-line medical direction. (C-1)
1-1.29 Describe the components of continuous quality improvement. (C-1)
1-1.30 Analyze the role of continuous quality improvement with respect to continuing medical education and research. (C-3)
1-1.31 Define the role of the paramedic relative to the safety of the crew, the patient, and bystanders. (C-1)
1-1.32 Identify local health care agencies and transportation resources for patients with special needs. (C-1)
1-1.33 Describe the role of the paramedic in health education activities related to illness and injury prevention. (C-1)
1-1.34 Describe the importance and benefits of research. (C-2)
1-1.35 Explain the EMS provider's role in data collection. (C-1)
1-1.36 Explain the basic principles of research. (C-1)
1-1.37 Describe a process of evaluating and interpreting research. (C-3)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-1.38 Assess personal practices relative to the responsibility for personal safety, the safety of the crew, the patient, and bystanders. (A-3)
1-1.39 Serve as a role model for others relative to professionalism in EMS. (A-3)
1-1.40 Value the need to serve as the patient advocate inclusive of those with special needs, alternate life styles and cultural diversity. (A-3)
1-1.41 Defend the importance of continuing medical education and skills retention. (A-3)
1-1.42 Advocate the need for supporting and participating in research efforts aimed at improving EMS systems. (A-3)
1-1.43 Assess personal attitudes and demeanor that may distract from professionalism. (A-3)
1-1.44 Value the role that family dynamics plays in the total care of patients. (A-3)
1-1.45 Advocate the need for injury prevention, including abusive situations. (A-1)
1-1.46 Exhibit professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork and diplomacy, respect, patient advocacy, and careful delivery of service. (A-2)

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

1-2 At the completion of this unit, the paramedic student will understand and value the importance of personal wellness in EMS and serve as a healthy role model for peers.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-2.1 Discuss the concept of wellness and its benefits. (C-1)
1-2.2 Define the components of wellness. (C-1)
1-2.3 Describe the role of the paramedic in promoting wellness. (C-1)
1-2.4 Discuss the components of wellness associated with proper nutrition. (C-1)
1-2.5 List principles of weight control. (C-1)
1-2.6 Discuss how cardiovascular endurance, muscle strength, and flexibility contribute to physical fitness. (C-2)
1-2.7 Describe the impact of shift work on circadian rhythms. (C-1)
1-2.8 Discuss how periodic risk assessments and knowledge of warning signs contribute to cancer and cardiovascular disease prevention. (C-1)
1-2.9 Differentiate proper from improper body mechanics for lifting and moving patients in emergency and non-emergency situations. (C-3)
1-2.10 Describe the problems that a paramedic might encounter in a hostile situation and the techniques used to manage the situation. (C-1)
1-2.11 Given a scenario involving arrival at the scene of a motor vehicle collision, assess the safety of the scene and propose ways to make the scene safer. (C-3)
1-2.12 List factors that contribute to safe vehicle operations. (C-1)
1-2.13 Describe the considerations that should be given to: (C-1)
  a. Using escorts
  b. Adverse environmental conditions
  c. Using lights and siren
  d. Proceeding through intersections
  e. Parking at an emergency scene
1-2.14 Discuss the concept of "due regard for the safety of all others" while operating an emergency vehicle. (C-1)
1-2.15 Describe the equipment available for self-protection when confronted with a variety of adverse situations. (C-1)
1-2.16 Describe the benefits and methods of smoking cessation. (C-1)
1-2.17 Describe the three phases of the stress response. (C-1)
1-2.18 List factors that trigger the stress response. (C-1)
1-2.19 Differentiate between normal/ healthy and detrimental reactions to anxiety and stress. (C-3)
1-2.20 Describe the common physiological and psychological effects of stress. (C-1)
1-2.21 Identify causes of stress in EMS. (C-1)
1-2.22 Describe behavior that is a manifestation of stress in patients and those close to them and how these relate to paramedic stress. (C-1)
1-2.23 Identify and describe the defense mechanisms and management techniques commonly used to deal with stress. (C-1)
1-2.24 Describe the components of critical incident stress management (CISM). (C-1)
1-2.25 Provide examples of situations in which CISM would likely be beneficial to paramedics. (C-1)
1-2.26 Given a scenario involving a stressful situation, formulate a strategy to help cope with the stress. (C-3)
1-2.27 Describe the stages of the grieving process (Kubler-Ross). (C-1)
1-2.28 Describe the needs of the paramedic when dealing with death and dying. (C-1)

1-2.29 Describe the unique challenges for paramedics in dealing with the needs of children and other special populations related to their understanding or experience of death and dying. (C-1)
1-2.30 Discuss the importance of universal precautions and body substance isolation practices. (C-1)
1-2.31 Describe the steps to take for personal protection from airborne and bloodborne pathogens. (C-1)
1-2.32 Given a scenario in which equipment and supplies have been exposed to body substances, plan for the proper cleaning, disinfection, and disposal of the items. (C-3)
1-2.33 Explain what is meant by an exposure and describe principles for management. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-2.34 Advocate the benefits of working toward the goal of total personal wellness. (A-2)
1-2.35 Serve as a role model for other EMS providers in regard to a total wellness lifestyle. (A-3)
1-2.36 Value the need to assess his/ her own lifestyle. (A-2)
1-2.37 Challenge his/ herself to each wellness concept in his/ her role as a paramedic. (A-3)
1-2.38 Defend the need to treat each patient as an individual, with respect and dignity. (A-2)
1-2.39 Assess his/ her own prejudices related to the various aspects of cultural diversity. (A-3)
1-2.40 Improve personal physical well-being through achieving and maintaining proper body weight, regular exercise and proper nutrition. (A-3)
1-2.41 Promote and practice stress management techniques. (A-3)
1-2.42 Defend the need to respect the emotional needs of dying patients and their families. (A-3)
1-2.43 Advocate and practice the use of personal safety precautions in all scene situations. (A-3)
1-2.44 Advocate and serve as a role model for other EMS providers relative to body substance isolation practices. (A-3)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-2.45 Demonstrate safe methods for lifting and moving patients in emergency and non-emergency situations. (P-2)
1-2.46 Demonstrate the proper procedures to take for personal protection from disease. (P-2)

UNIT TERMINAL OBJECTIVE

1-4 At the completion of this unit, the paramedic student will understand the legal issues that impact decisions made in the out-of-hospital environment.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-4.1 Differentiate between legal and ethical responsibilities. (C-2)
1-4.2 Describe the basic structure of the legal system in the United States. (C-1)
1-4.3 Differentiate between civil and criminal law as it pertains to the paramedic. (C-1)
1-4.4 Identify and explain the importance of laws pertinent to the paramedic. (C-1)
1-4.5 Differentiate between licensure and certification as they apply to the paramedic. (C-1)
1-4.6 List the specific problems or conditions encountered while providing care that a paramedic is required to report, and identify in each instance to whom the report is to be made. (C-1)
1-4.7 Define the following terms: (C-1)
- a. Abandonment
- b. Advance directives
- c. Assault
- d. Battery
- e. Breach of duty
- f. Confidentiality
- g. Consent (expressed, implied, informed, involuntary)
- h. Do not resuscitate (DNR) orders
- I. Duty to act
- j. Emancipated minor
- k. False imprisonment
- l. Immunity
- m. Liability
- n. Libel
- o. Minor
- p. Negligence
- q. Proximate cause
- r. Scope of practice
- s. Slander
- t. Standard of care
- u. Tort

1-4.8 Differentiate between the scope of practice and the standard of care for paramedic practice. (C-3)
1-4.9 Discuss the concept of medical direction, including off-line medical direction and on-line medical direction, and its relationship to the standard of care of a paramedic. (C-1)
1-4.10 Describe the four elements that must be present in order to prove negligence. (C-1)
1-4.11 Given a scenario in which a patient is injured while a paramedic is providing care, determine whether the four components of negligence are present. (C-2)
1-4.12 Given a scenario, demonstrate patient care behaviors that would protect the paramedic from claims of negligence. (C-3)
1-4.13 Explain the concept of liability as it might apply to paramedic practice, including physicians providing medical direction and paramedic supervision of other care providers. (C-2)
1-4.14 Discuss the legal concept of immunity, including Good Samaritan statutes and governmental immunity, as it applies to the paramedic. (C-1)
1-4.15 Explain the importance and necessity of patient confidentiality and the standards for maintaining patient confidentiality that apply to the paramedic. (C-1)

1-4.16 Differentiate among expressed, informed, implied, and involuntary consent. (C-2)
1-4.17 Given a scenario in which a paramedic is presented with a conscious patient in need of care, describe the process used to obtain consent. (C-2)
1-4.18 Identify the steps to take if a patient refuses care. (C-1)
1-4.19 Given a scenario, demonstrate appropriate patient management and care techniques in a refusal of care situation. (C-3)
1-4.20 Describe what constitutes abandonment. (C-1)
1-4.21 Identify the legal issues involved in the decision not to transport a patient, or to reduce the level of care being provided during transportation. (C-1)
1-4.22 Describe how hospitals are selected to receive patients based on patient need and hospital capability and the role of the paramedic in such selection. (C-1)
1-4.23 Differentiate between assault and battery and describe how to avoid each. (C-2)
1-4.24 Describe the conditions under which the use of force, including restraint, is acceptable. (C-1)
1-4.25 Explain the purpose of advance directives relative to patient care and how the paramedic should care for a patient who is covered by an advance directive. (C-1)
1-4.26 Discuss the responsibilities of the paramedic relative to resuscitation efforts for patients who are potential organ donors. (C-1)
1-4.27 Describe the actions that the paramedic should take to preserve evidence at a crime or accident scene. (C-1)
1-4.28 Describe the importance of providing accurate documentation (oral and written) in substantiating an incident. (C-1)
1-4.29 Describe the characteristics of a patient care report required to make it an effective legal document. (C-1)
1-4.30 Given a scenario, prepare a patient care report, including an appropriately detailed narrative. (C-2)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-4.31 Advocate the need to show respect for the rights and feelings of patients. (A-3)
1-4.32 Assess his/ her personal commitment to protecting patient confidentiality. (A-3)
1-4.33 Given a scenario involving a new employee, explain the importance of obtaining consent for adults and minors. (A-2)
1-4.34 Defend personal beliefs about withholding or stopping patient care. (A-3)
1-4.35 Defend the value of advance medical directives. (A-3)

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

1-5 At the completion of this unit, the paramedic student will understand the role that ethics plays in decision making in the out-of-hospital environment.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-5.1 Define ethics. (C-1)
1-5.2 Distinguish between ethical and moral decisions. (C-3)
1-5.3 Identify the premise that should underlie the paramedic's ethical decisions in out-of hospital care. (C-1)
1-5.4 Analyze the relationship between the law and ethics in EMS. (C-3)
1-5.5 Compare and contrast the criteria that may be used in allocating scarce EMS resources. (C-3)
1-5.6 Identify the issues surrounding the use of advance directives, in making a prehospital resuscitation decision. (C-1)
1-5.7 Describe the criteria necessary to honor an advance directive in your state. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-5.8 Value the patient's autonomy in the decision-making process. (A-2)
1-5.9 Defend the following ethical positions: (A-3)
- a. The paramedic is accountable to the patient.
- b. The paramedic is accountable to the medical director.
- c. The paramedic is accountable to the EMS system.
- d. The paramedic is accountable for fulfilling the standard of care.

1-5.10 Given a scenario, defend or challenge a paramedic's actions concerning a patient who is treated against his/ her wishes. (A-3)
1-5.11 Given a scenario, defend a paramedic's actions in a situation where a physician orders therapy the paramedic feels to be detrimental to the patient's best interests. (A-3)

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

1-6 At the completion of this unit, the paramedic student will be able to apply the general concepts of pathophysiology for the assessment and management of emergency patients.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-6.1 Discuss cellular adaptation. (C-1)
1-6.2 Describe cellular injury and cellular death. (C-1)
1-6.4 Describe the cellular environment. (C-1)
1-6.10 Discuss hypoperfusion. (C-1)
1-6.11 Define cardiogenic, hypovolemic, neurogenic, anaphylactic and septic shock. (C-1)
1-6.12 Describe multiple organ dysfunction syndrome. (C-1)
1-6.17 Describe the inflammation response. (C-1)
1-6.18 Discuss the role of mast cells as part of the inflammation response. (C-1)
1-6.26 Describe homeostasis as a dynamic steady state. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-6.31 Advocate the need to understand and apply the knowledge of pathophysiology to patient assessment and treatment. (A-2)

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

1-7 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles of pharmacology and the assessment findings to formulate a field impression and implement a pharmacologic management plan.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-7.1 Describe historical trends in pharmacology. (C-1)
1-7.2 Differentiate among the chemical, generic (nonproprietary), and trade (proprietary) names of a drug. (C-3)
1-7.3 List the four main sources of drug products. (C-1)
1-7.4 Describe how drugs are classified. (C-1)
1-7.5 List the authoritative sources for drug information. (C-1)
1-7.6 List legislative acts controlling drug use and abuse in the United States. (C-1)
1-7.7 Differentiate among Schedule I, II, III, IV, and V substances. (C-3)
1-7.8 List examples of substances in each schedule. (C-1)
1-7.9 Discuss standardization of drugs. (C-1)
1-7.10 Discuss investigational drugs, including the Food and Drug Administration (FDA) approval process and the FDA classifications for newly approved drugs. (C-1)
1-7.11 Discuss special consideration in drug treatment with regard to pregnant, pediatric and geriatric patients. (C-1)
1-7.12 Discuss the paramedic's responsibilities and scope of management pertinent to the administration of medications. (C-1)
1-7.13 Review the specific anatomy and physiology pertinent to pharmacology with additional attention to autonomic pharmacology. (C-1)
1-7.14 List and describe general properties of drugs. (C-1)
1-7.15 List and describe liquid and solid drug forms. (C-1)
1-7.16 List and differentiate routes of drug administration. (C-3)
1-7.17 Differentiate between enteral and parenteral routes of drug administration. (C-3)
1-7.18 Describe mechanisms of drug action. (C-1)
1-7.19 List and differentiate the phases of drug activity, including the pharmaceutical, pharmacokinetic, and pharmacodynamic phases. (C-3)
1-7.20 Describe the process called pharmacokinetics, pharmocodynamics, including theories of drug action, drug-response relationship, factors altering drug responses, predictable drug responses, iatrogenic drug responses, and unpredictable adverse drug responses. (C-1)
1-7.21 Differentiate among drug interactions. (C-3)
1-7.22 Discuss considerations for storing and securing medications. (C-1)
1-7.23 List the component of a drug profile by classification. (C-1)
1-7.24 List and describe drugs that the paramedic may administer according to local protocol. (C-1)
1-7.25 Integrate pathophysiological principles of pharmacology with patient assessment. (C-3)
1-7.26 Synthesize patient history information and assessment findings to form a field impression. (C-3)
1-7.27 Synthesize a field impression to implement a pharmacologic management plan. (C-3)
1-7.28 Assess the pathophysiology of a patient's condition by identifying classifications of drugs. (C-3)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-7.29 Serve as a model for obtaining a history by identifying classifications of drugs. (A-3)
1-7.30 Defend the administration of drugs by a paramedic to affect positive therapeutic affect. (A-3)
1-7.31 Advocate drug education through identification of drug classifications. (A-3)

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

1-8 At the completion of this unit, the paramedic student will be able to safely and precisely access the venous circulation and administer medications.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-8.1 Review the specific anatomy and physiology pertinent to medication administration. (C-1)
1-8.2 Review mathematical principles. (C-1)
1-8.3 Review mathematical equivalents. (C-1)
1-8.4 Differentiate temperature readings between the Centigrade and Fahrenheit scales. (C-3)
1-8.5 Discuss formulas as a basis for performing drug calculations. (C-1)
1-8.6 Discuss applying basic principles of mathematics to the calculation of problems associated with medication dosages. (C-1)
1-8.7 Describe how to perform mathematical conversions from the household system to the metric system. (C-1)
1-8.8 Describe the indications, equipment needed, technique used, precautions, and general principles of peripheral venous or external jugular cannulation. (C-1)
1-8.10 Discuss legal aspects affecting medication administration. (C-1)
1-8.11 Discuss the "six rights" of drug administration and correlate these with the principles of medication administration. (C-1)
1-8.12 Discuss medical asepsis and the differences between clean and sterile techniques. (C-1)
1-8.13 Describe use of antiseptics and disinfectants. (C-1)
1-8.14 Describe the use of universal precautions and body substance isolation (BSI) procedures when administering a medication. (C-1)
1-8.15 Differentiate among the different dosage forms of oral medications. (C-3)
1-8.16 Describe the equipment needed and general principles of administering oral medications. (C-3)
1-8.17 Describe the indications, equipment needed, techniques used, precautions, and general principles of administering medications by the inhalation route. (C-3)
1-8.19 Describe the indications, equipment needed, techniques used, precautions, and general principles of rectal medication administration. (C-3)
1-8.20 Differentiate among the different parenteral routes of medication administration. (C-3)
1-8.21 Describe the equipment needed, techniques used, complications, and general principles for the preparation and administration of parenteral medications. (C-1)
1-8.22 Differentiate among the different percutaneous routes of medication administration. (C-3)
1-8.23 Describe the purpose, equipment needed, techniques used, complications, and general principles for obtaining a blood sample. (C-1)
1-8.24 Describe disposal of contaminated items and sharps. (C-1)
1-8.25 Synthesize a pharmacologic management plan including medication administration. (C-3)
1-8.26 Integrate pathophysiological principles of medication administration with patient management. (C-3)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-8.27 Comply with paramedic standards of medication administration. (A-1)
1-8.28 Comply with universal precautions and body substance isolation (BSI). (A-1)
1-8.29 Defend a pharmacologic management plan for medication administration. (A-3)
1-8.30 Serve as a model for medical asepsis. (A-3)
1-8.31 Serve as a model for advocacy while performing medication administration. (A-3)
1-8.32 Serve as a model for disposing contaminated items and sharps. (A-3)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-8.33 Use universal precautions and body substance isolation (BSI) procedures during medication administration. (P-2)
1-8.34 Demonstrate cannulation of peripheral or external jugular veins. (P-2)
1-8.36 Demonstrate clean technique during medication administration. (P-3)
1-8.37 Demonstrate administration of oral medications. (P-2)
1-8.38 Demonstrate administration of medications by the inhalation route. (P-2)
1-8.40 Demonstrate rectal administration of medications. (P-2)
1-8.41 Demonstrate preparation and administration of parenteral medications. (P-2)
1-8.42 Demonstrate preparation and techniques for obtaining a blood sample. (P-2)
1-8.43 Perfect disposal of contaminated items and sharps. (P-3)

UNIT TERMINAL OBJECTIVE

1-9 At the completion of this unit, the paramedic student will be able to integrate the principles of therapeutic communication to effectively communicate with any patient while providing care.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-9.1 Define communication. (C-1)
1-9.2 Identify internal and external factors that affect a patient/ bystander interview conducted by a paramedic. (C-1)
1-9.3 Restate the strategies for developing patient rapport. (C-1)
1-9.4 Provide examples of open-ended and closed or direct questions. (C-1)
1-9.5 Discuss common errors made by paramedics when interviewing patients. (C-1)
1-9.6 Identify the nonverbal skills that are used in patient interviewing. (C-1)
1-9.7 Restate the strategies to obtain information from the patient. (C-1)
1-9.8 Summarize the methods to assess mental status based on interview techniques. (C-1)
1-9.9 Discuss the strategies for interviewing a patient who is unmotivated to talk. (C-1)
1-9.10 Differentiate the strategies a paramedic uses when interviewing a patient who is hostile compared to one who is cooperative. (C-3)
1-9.11 Summarize developmental considerations of various age groups that influence patient interviewing. (C-1)
1-9.12 Restate unique interviewing techniques necessary to employ with patients who have special needs. (C-1)
1-9.13 Discuss interviewing considerations used by paramedics in cross-cultural communications. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

1-9.14 Serve as a model for an effective communication process. (A-3)
1-9.15 Advocate the importance of external factors of communication. (A-2)
1-9.16 Promote proper responses to patient communication. (A-2)
1-9.17 Exhibit professional non-verbal behaviors. (A-2)
1-9.18 Advocate development of proper patient rapport. (A-2)
1-9.19 Value strategies to obtain patient information. (A-2)
1-9.20 Exhibit professional behaviors in communicating with patients in special situations. (A-3)
1-9.21 Exhibit professional behaviors in communication with patient form different cultures. (A-3)

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

2-1 At the completion of this unit, the paramedic student will be able to establish and/ or maintain a patent airway, oxygenate, and ventilate a patient.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

2-1.1 Explain the primary objective of airway maintenance. (C-1)
2-1.2 Identify commonly neglected prehospital skills related to airway. (C-1)
2-1.3 Identify the anatomy of the upper and lower airway. (C-1)
2-1.4 Describe the functions of the upper and lower airway. (C-1)
2-1.5 Explain the differences between adult and pediatric airway anatomy. (C-1)
2-1.6 Define gag reflex. (C-1)
2-1.7 Explain the relationship between pulmonary circulation and respiration. (C-3)
2-1.8 List the concentration of gases that comprise atmospheric air. (C-1)
2-1.9 Describe the measurement of oxygen in the blood. (C-1)
2-1.10 Describe the measurement of carbon dioxide in the blood. (C-1)
2-1.12 List factors that cause decreased oxygen concentrations in the blood. (C-1)
2-1.13 List the factors that increase and decrease carbon dioxide production in the body. (C-1)
2-1.14 Define atelectasis. (C-1)
2-1.15 Define FiO_2. (C-1)
2-1.16 Define and differentiate between hypoxia and hypoxemia. (C-1)
2-1.17 Describe the voluntary and involuntary regulation of respiration. (C-1)
2-1.18 Describe the modified forms of respiration. (C-1)
2-1.19 Define normal respiratory rates and tidal volumes for the adult, child, and infant. (C-1)
2-1.20 List the factors that affect respiratory rate and depth. (C-1)
2-1.21 Explain the risk of infection to EMS providers associated with ventilation. (C-3)
2-1.22 Define pulsus paradoxes. (C-1)
2-1.23 Define and explain the implications of partial airway obstruction with good and poor air exchange. (C-1)
2-1.24 Define complete airway obstruction. (C-1)
2-1.25 Describe causes of upper airway obstruction. (C-1)
2-1.26 Describe causes of respiratory distress. (C-1)
2-1.27 Describe manual airway maneuvers. (C-1)
2-1.28 Describe the Sellick (cricoid pressure) maneuver. (C-1)
2-1.29 Describe complete airway obstruction maneuvers. (C-1)
2-1.30 Explain the purpose for suctioning the upper airway. (C-1)
2-1.31 Identify types of suction equipment. (C-1)
2-1.32 Describe the indications for suctioning the upper airway. (C-3)
2-1.33 Identify types of suction catheters, including hard or rigid catheters and soft catheters. (C-1)
2-1.34 Identify techniques of suctioning the upper airway. (C-1)
2-1.35 Identify special considerations of suctioning the upper airway. (C-1)
2-1.36 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique of tracheobronchial suctioning in the intubated patient. (C-3)
2-1.37 Describe the use of an oral and nasal airway. (C-1)
2-1.38 Identify special considerations of tracheobronchial suctioning in the intubated patient. (C-1)
2-1.39 Define gastric distention. (C-1)
2-1.40 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for inserting a nasogastric tube and orogastric tube. (C-1)

2-1.42 Describe the indications, contraindications, advantages, disadvantages, complications, and technique for inserting an oropharyngeal and nasopharyngeal airway (C-1)
2-1.43 Describe the indications, contraindications, advantages, disadvantages, complications, and technique for ventilating a patient by: (C-1)
- a. Mouth-to-mouth
- b. Mouth-to-nose
- c. Mouth-to-mask
- d. One person bag-valve-mask
- e. Two person bag-valve-mask
- f. Three person bag-valve-mask
- g. Flow-restricted, oxygen-powered ventilation device

2-1.44 Explain the advantage of the two person method when ventilating with the bag-valve-mask. (C-1)
2-1.45 Compare the ventilation techniques used for an adult patient to those used for pediatric patients. (C-3)
2-1.46 Describe indications, contraindications, advantages, disadvantages, complications, and technique for ventilating a patient with an automatic transport ventilator (ATV). (C-1)
2-1.47 Explain safety considerations of oxygen storage and delivery. (C-1)
2-1.48 Identify types of oxygen cylinders and pressure regulators (including a high-pressure regulator and a therapy regulator). (C-1)
2-1.49 List the steps for delivering oxygen from a cylinder and regulator. (C-1)
2-1.50 Describe the use, advantages and disadvantages of an oxygen humidifier. (C-1)
2-1.51 Describe the indications, contraindications, advantages, disadvantages, complications, liter flow range, and concentration of delivered oxygen for supplemental oxygen delivery devices. (C-3)
2-1.52 Define, identify and describe a tracheostomy, stoma, and tracheostomy tube. (C-1)
2-1.53 Define, identify, and describe a laryngectomy. (C-1)
2-1.54 Define how to ventilate with a patient with a stoma, including mouth-to-stoma and bag-valve-mask-to-stoma ventilation. (C-1)
2-1.55 Describe the special considerations in airway management and ventilation for patients with facial injuries. (C-1)
2-1.56 Describe the special considerations in airway management and ventilation for the pediatric patient. (C-1)
2-1.57 Differentiate endotracheal intubation from other methods of advanced airway management. (C-3)
2-1.58 Describe the indications, contraindications, advantages, disadvantages and complications of endotracheal intubation. (C-1)
2-1.59 Describe laryngoscopy for the removal of a foreign body airway obstruction. (C-1)
2-1.60 Describe the indications, contraindications, advantages, disadvantages, complications, equipment, and technique for direct laryngoscopy. (C-1)
2-1.61 Describe visual landmarks for direct laryngoscopy. (C-1)
2-1.62 Describe use of cricoid pressure during intubation. (C-1)
2-1.63 Describe indications, contraindications, advantages, disadvantages, complications, equipment and technique for digital endotracheal intubation. (C-1)
2-1.64 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for using a dual lumen airway. (C-3)
2-1.69 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for nasotracheal intubation. (C-1)
2-1.73 Describe methods of assessment for confirming correct placement of an endotracheal tube. (C-1)
2-1.74 Describe methods for securing an endotracheal tube. (C-1)
2-1.75 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for extubation. (C-1)
2-1.76 Describe methods of endotracheal intubation in the pediatric patient. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

2-1.77 Defend the need to oxygenate and ventilate a patient. (A-1)
2-1.78 Defend the necessity of establishing and/ or maintaining patency of a patient's airway. (A-1)
2-1.79 Comply with standard precautions to defend against infectious and communicable diseases. (A-1)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

2-1.80 Perform body substance isolation (BSI) procedures during basic airway management, advanced airway management, and ventilation. (P-2)
2-1.81 Perform pulse oximetry. (P-2)
2-1.82 Perform end-tidal CO_2 detection. (P-2)
2-1.83 Perform peak expiratory flow testing. (P-2)
2-1.84 Perform manual airway maneuvers, including: (P-2)
- a. Opening the mouth
- b. Head-tilt/ chin-lift maneuver
- c. Jaw-thrust without head-tilt maneuver
- d. Modified jaw-thrust maneuver

2-1.85 Perform manual airway maneuvers for pediatric patients, including: (P-2)
- a. Opening the mouth
- b. Head-tilt/ chin-lift maneuver
- c. Jaw-thrust without head-tilt maneuver
- d. Modified jaw-thrust maneuver

2-1.86 Perform the Sellick maneuver (cricoid pressure). (P-2)
2-1.87 Perform complete airway obstruction maneuvers, including: (P-2)
- a. Heimlich maneuver
- b. Finger sweep
- c. Chest thrusts
- d. Removal with Magill forceps

2-1.88 Demonstrate suctioning the upper airway by selecting a suction device, catheter and technique. (P-2)
2-1.89 Perform tracheobronchial suctioning in the intubated patient by selecting a suction device, catheter and technique. (P-2)
2-1.93 Demonstrate insertion of an oropharyngeal airway. (P-2)
2-1.94 Demonstrate insertion of a nasopharyngeal airway. (P-2)
2-1.95 Demonstrate ventilating a patient by the following techniques: (P-2)
- a. Mouth-to-mask ventilation
- b. One person bag-valve-mask
- c. Two person bag-valve-mask
- d. Three person bag-valve-mask
- e. Flow-restricted, oxygen-powered ventilation device
- f. Automatic transport ventilator
- g. Mouth-to-stoma
- h. Bag-valve-mask-to-stoma ventilation

2-1.96 Ventilate a pediatric patient using the one and two person techniques. (P-2)
2-1.97 Perform ventilation with a bag-valve-mask with an in-line small-volume nebulizer. (P-2)
2-1.98 Perform oxygen delivery from a cylinder and regulator with an oxygen delivery device. (P-2)
2-1.99 Perform oxygen delivery with an oxygen humidifier. (P-2)

2-1.100 Deliver supplemental oxygen to a breathing patient using the following devices: nasal cannula, simple face mask, partial rebreather mask, non-rebreather mask, and venturi mask (P-2)
2-1.101 Perform stoma suctioning. (P-2)
2-1.102 Perform retrieval of foreign bodies from the upper airway. (P-2)
2-1.103 Perform assessment to confirm correct placement of the endotracheal tube. (P-2)
2-1.104 Intubate the trachea by the following methods: (P-2)
- a. Orotracheal intubation
- b. Nasotracheal intubation
- c. Multi-lumen airways
- d. Digital intubation

2-1.105 Adequately secure an endotracheal tube. (P-1)
2-1.106 Perform endotracheal intubation in the pediatric patient. (P-2)
2-1.108 Perform extubation. (P-2)

UNIT TERMINAL OBJECTIVE

3-2 At the completion end of this unit, the paramedic student will be able to explain the pathophysiological significance of physical exam findings.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

3-2.1 Define the terms inspection, palpation, percussion, auscultation. (C-1)
3-2.2 Describe the techniques of inspection, palpation, percussion, and auscultation. (C-1)
3-2.3 Describe the evaluation of mental status. (C-1)
3-2.4 Evaluate the importance of a general survey. (C-3)
3-2.5 Describe the examination of skin, hair and nails. (C-1)
3-2.6 Differentiate normal and abnormal findings of the assessment of the skin. (C-3)
3-2.7 Distinguish the importance of abnormal findings of the assessment of the skin. (C-3)
3-2.8 Describe the examination of the head and neck. (C-1)
3-2.9 Differentiate normal and abnormal findings of the scalp examination. (C-3)
3-2.10 Describe the normal and abnormal assessment findings of the skull. (C-1)
3-2.11 Describe the assessment of visual acuity. (C-1)
3-2.12 Explain the rationale for the use of an ophthalmoscope. (C-1)
3-2.13 Describe the examination of the eyes. (C-1)
3-2.14 Distinguish between normal and abnormal assessment findings of the eyes. (C-3)
3-2.15 Explain the rationale for the use of an otoscope. (C-1)
3-2.16 Describe the examination of the ears. (C-1)
3-2.17 Differentiate normal and abnormal assessment findings of the ears. (C-3)
3-2.18 Describe the examination of the nose. (C-1)
3-2.19 Differentiate normal and abnormal assessment findings of the nose. (C-3)
3-2.20 Describe the examination of the mouth and pharynx. (C-1)
3-2.21 Differentiate normal and abnormal assessment findings of the mouth and pharynx. (C-3)
3-2.22 Describe the examination of the neck. (C-1)
3-2.23 Differentiate normal and abnormal assessment findings the neck. (C-3)
3-2.24 Describe the survey of the thorax and respiration. (C-1)
3-2.25 Describe the examination of the posterior chest. (C-1)
3-2.26 Describe percussion of the chest. (C-1)
3-2.27 Differentiate the percussion notes and their characteristics. (C-3)
3-2.28 Differentiate the characteristics of breath sounds. (C-3)
3-2.29 Describe the examination of the anterior chest. (C-1)
3-2.30 Differentiate normal and abnormal assessment findings of the chest examination. (C-3)
3-2.31 Describe special examination techniques related to the assessment of the chest. (C-1)
3-2.32 Describe the examination of the arterial pulse including rate, rhythm, and amplitude. (C-1)
3-2.33 Distinguish normal and abnormal findings of arterial pulse. (C-3)
3-2.34 Describe the assessment of jugular venous pressure and pulsations. (C-1)
3-2.35 Distinguish normal and abnormal examination findings of jugular venous pressure and pulsations. (C-3)
3-2.36 Describe the examination of the heart and blood vessels. (C-1)
3-2.37 Differentiate normal and abnormal assessment findings of the heart and blood vessels. (C-3)
3-2.38 Describe the auscultation of the heart. (C-1)
3-2.39 Differentiate the characteristics of normal and abnormal findings associated with the auscultation of the heart. (C-3)
3-2.40 Describe special examination techniques of the cardiovascular examination. (C-1)
3-2.41 Describe the examination of the abdomen. (C-1)

3-2.42 Differentiate normal and abnormal assessment findings of the abdomen. (C-3)
3-2.43 Describe auscultation of the abdomen. (C-1)
3-2.44 Distinguish normal and abnormal findings of the auscultation of the abdomen. (C-3)
3-2.45 Describe the examination of the female genitalia. (C-1)
3-2.46 Differentiate normal and abnormal assessment findings of the female genitalia. (C-3)
3-2.47 Describe the examination of the male genitalia. (C-1)
3-2.48 Differentiate normal and abnormal findings of the male genitalia. (C-3)
3-2.49 Describe the examination of the anus and rectum. (C-3)
3-2.50 Distinguish between normal and abnormal findings of the anus and rectum. (C-3)
3-2.51 Describe the examination of the peripheral vascular system. (C-1)
3-2.52 Differentiate normal and abnormal findings of the peripheral vascular system. (C-3)
3-2.53 Describe the examination of the musculoskeletal system. (C-1)
3-2.54 Differentiate normal and abnormal findings of the musculoskeletal system. (C-3)
3-2.55 Describe the examination of the nervous system. (C-1)
3-2.56 Differentiate normal and abnormal findings of the nervous system. (C-3)
3-2.57 Describe the assessment of the cranial nerves. (C-1)
3-2.58 Differentiate normal and abnormal findings of the cranial nerves. (C-3)
3-2.59 Describe the general guidelines of recording examination information. (C-1)
3-2.60 Discuss the considerations of examination of an infant or child. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

3-2.61 Demonstrate a caring attitude when performing physical examination skills. (A-3)
3-2.62 Discuss the importance of a professional appearance and demeanor when performing physical examination skills. (A-1)
3-2.63 Appreciate the limitations of conducting a physical exam in the out-of-hospital environment. (A-2)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

3-2.64 Demonstrate the examination of skin, hair and nails. (P-2)
3-2.65 Demonstrate the examination of the head and neck. (P-2)
3-2.66 Demonstrate the examination of the eyes. (P-2)
3-2.67 Demonstrate the examination of the ears. (P-2)
3-2.68 Demonstrate the assessment of visual acuity. (P-2)
3-2.69 Demonstrate the examination of the nose. (P-2)
3-2.70 Demonstrate the examination of the mouth and pharynx. (P-2)
3-2.71 Demonstrate the examination of the neck. (P-2)
3-2.72 Demonstrate the examination of the thorax and ventilation. (P-2)
3-2.73 Demonstrate the examination of the posterior chest. (P-2)
3-2.74 Demonstrate auscultation of the chest. (P-2)
3-2.75 Demonstrate percussion of the chest. (P-2)
3-2.76 Demonstrate the examination of the anterior chest. (P-2)
3-2.77 Demonstrate special examination techniques related to the assessment of the chest. (P-2)
3-2.78 Demonstrate the examination of the arterial pulse including location, rate, rhythm, and amplitude. (P-2)
3-2.79 Demonstrate the assessment of jugular venous pressure and pulsations. (P-2)
3-2.80 Demonstrate the examination of the heart and blood vessels. (P-2)

3-2.81 Demonstrate special examination techniques of the cardiovascular examination. (P-2)
3-2.82 Demonstrate the examination of the abdomen. (P-2)
3-2.83 Demonstrate auscultation of the abdomen. (P-2)
3-2.84 Demonstrate the external visual examination of the female genitalia. (P-2)
3-2.85 Demonstrate the examination of the male genitalia. (P-2)
3-2.86 Demonstrate the examination of the peripheral vascular system. (P-2)
3-2.87 Demonstrate the examination of the musculoskeletal system. (P-2)
3-2.88 Demonstrate the examination of the nervous system. (P-2)

UNIT TERMINAL OBJECTIVE

4-2 the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with shock or hemorrhage.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

4-2.1 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for shock and hemorrhage. (C-1)
4-2.2 Discuss the anatomy and physiology of the cardiovascular system. (C-1)
4-2.3 Predict shock and hemorrhage based on mechanism of injury. (C-1)
4-2.4 Discuss the various types and degrees of shock and hemorrhage. (C-1)
4-2.5 Discuss the pathophysiology of hemorrhage and shock. (C-1)
4-2.6 Discuss the assessment findings associated with hemorrhage and shock. (C-1)
4-2.7 Identify the need for intervention and transport of the patient with hemorrhage or shock. (C-1)
4-2.8 Discuss the treatment plan and management of hemorrhage and shock. (C-1)
4-2.9 Discuss the management of external hemorrhage. (C-1)
4-2.10 Differentiate between controlled and uncontrolled hemorrhage. (C-3)
4-2.11 Differentiate between the administration rate and amount of IV fluid in a patient with controlled versus uncontrolled hemorrhage. (C-3)
4-2.12 Relate internal hemorrhage to the pathophysiology of compensated and decompensated hemorrhagic shock. (C-3)
4-2.13 Relate internal hemorrhage to the assessment findings of compensated and decompensated hemorrhagic shock. (C-3)
4-2.14 Discuss the management of internal hemorrhage. (C-1)
4-2.15 Define shock based on aerobic and anaerobic metabolism. (C-1)
4-2.16 Describe the incidence, morbidity, and mortality of shock. (C-1)
4-2.17 Describe the body's physiologic response to changes in perfusion. (C-1)
4-2.18 Describe the effects of decreased perfusion at the capillary level. (C-1)
4-2.19 Discuss the cellular ischemic phase related to hemorrhagic shock. (C-1)
4-2.20 Discuss the capillary stagnation phase related to hemorrhagic shock. (C-1)
4-2.21 Discuss the capillary washout phase related to hemorrhagic shock. (C-1)
4-2.22 Discuss the assessment findings of hemorrhagic shock. (C-1)
4-2.23 Relate pulse pressure changes to perfusion status. (C-3)
4-2.24 Relate orthostatic vital sign changes to perfusion status. (C-3)
4-2.25 Define compensated and decompensated hemorrhagic shock. (C-1)
4-2.26 Discuss the pathophysiological changes associated with compensated shock. (C-1)
4-2.27 Discuss the assessment findings associated with compensated shock. (C-1)
4-2.28 Identify the need for intervention and transport of the patient with compensated shock. (C-1)
4-2.29 Discuss the treatment plan and management of compensated shock. (C-1)
4-2.30 Discuss the pathophysiological changes associated with decompensated shock. (C-1)
4-2.31 Discuss the assessment findings associated with decompensated shock. (C-1)
4-2.32 Identify the need for intervention and transport of the patient with decompensated shock. (C-1)
4-2.33 Discuss the treatment plan and management of the patient with decompensated shock. (C-1)
4-2.34 Differentiate between compensated and decompensated shock. (C-3)
4-2.35 Relate external hemorrhage to the pathophysiology of compensated and decompensated hemorrhagic shock. (C-3)
4-2.36 Relate external hemorrhage to the assessment findings of compensated and decompensated hemorrhagic shock. (C-3)

4-2.37 Differentiate between the normotensive, hypotensive, or profoundly hypotensive patient. (C-3)
4-2.38 Differentiate between the administration of fluid in the normotensive, hypotensive, or profoundly hypotensive patient. (C-3)
4-2.39 Discuss the physiologic changes associated with the pneumatic anti-shock garment (PASG). (C-1)
4-2.40 Discuss the indications and contraindications for the application and inflation of the PASG. (C-1)
4-2.41 Apply epidemiology to develop prevention strategies for hemorrhage and shock. (C-1)
4-2.42 Integrate the pathophysiological principles to the assessment of a patient with hemorrhage or shock. (C-3)
4-2.43 Synthesize assessment findings and patient history information to form a field impression for the patient with hemorrhage or shock. (C-3)
4-2.44 Develop, execute and evaluate a treatment plan based on the field impression for the hemorrhage or shock patient. (C-3)

AFFECTIVE OBJECTIVES
None identified for this unit.

PSYCHOMOTOR OBJECTIVES
At the completion of this unit, the paramedic student will be able to:

4-2.45 Demonstrate the assessment of a patient with signs and symptoms of hemorrhagic shock. (P-2)
4-2.46 Demonstrate the management of a patient with signs and symptoms of hemorrhagic shock. (P-2)
4-2.47 Demonstrate the assessment of a patient with signs and symptoms of compensated hemorrhagic shock. (P-2)
4-2.48 Demonstrate the management of a patient with signs and symptoms of compensated hemorrhagic shock. (P-2)
4-2.49 Demonstrate the assessment of a patient with signs and symptoms of decompensated hemorrhagic shock. (P-2)
4-2.50 Demonstrate the management of a patient with signs and symptoms of decompensated hemorrhagic shock. (P-2)
4-2.51 Demonstrate the assessment of a patient with signs and symptoms of external hemorrhage. (P-2)
4-2.52 Demonstrate the management of a patient with signs and symptoms of external hemorrhage. (P-2)
4-2.53 Demonstrate the assessment of a patient with signs and symptoms of internal hemorrhage. (P-2)
4-2.54 Demonstrate the management of a patient with signs and symptoms of internal hemorrhage. (P-2)

UNIT TERMINAL OBJECTIVE

4-4 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to formulate a field impression and implement the management plan for the patient with a burn injury.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

4-4.25 Differentiate between supraglottic and infraglottic inhalation injuries. (C-3)
4-4.26 Identify and describe the depth classifications of an inhalation burn injury. (C-1)
4-4.27 Identify and describe the severity of an inhalation burn injury. (C-1)
4-4.28 Describe considerations which impact management and prognosis of the patient with an inhalation burn injury. (C-1)
4-4.29 Discuss mechanisms of burn injury and conditions associated with an inhalation burn injury. (C-1)
4-4.30 Describe the management of an inhalation burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, and psychological support/ communication strategies. (C-1)

AFFECTIVE OBJECTIVES

None identified for this unit.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

4-4.80 Perform management of a thermal burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, psychological support/ communication strategies, and other management described by local protocol. (P-2)
4-4.81 Perform management of an inhalation burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, psychological support/ communication strategies, and other management described by local protocol. (P-2)

UNIT TERMINAL OBJECTIVE

5-1 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory problems.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-1.1 Discuss the epidemiology of pulmonary diseases and conditions. (C-1)
5-1.2 Identify and describe the function of the structures located in the upper and lower airway. (C-1)
5-1.3 Discuss the physiology of ventilation and respiration. (C-1)
5-1.4 Identify common pathological events that affect the pulmonary system. (C-1)
5-1.5 Discuss abnormal assessment findings associated with pulmonary diseases and conditions. (C-1)
5-1.6 Compare various airway and ventilation techniques used in the management of pulmonary diseases. (C-3)
5-1.7 Review the pharmacological preparations that paramedics use for management of respiratory diseases and conditions. (C-1)
5-1.10 Identify the epidemiology, anatomy, physiology, pathophysiology, assessment findings, and management for the following respiratory diseases and conditions: (C-1)
- b. Bronchial asthma
- c. Chronic bronchitis
- d. Emphysema
- e. Pneumonia
- f. Pulmonary edema
- j. Spontaneous pneumothorax
- k. Hyperventilation syndrome

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-1.11 Recognize and value the assessment and treatment of patients with respiratory diseases. (A-2)
5-1.12 Indicate appreciation for the critical nature of accurate field impressions of patients with respiratory diseases and conditions. (A-2)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-1.13 Demonstrate proper use of airway and ventilation devices. (P-1)
5-1.14 Conduct a history and patient assessment for patients with pulmonary diseases and conditions. (P-1)

UNIT TERMINAL OBJECTIVE

5-2 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with cardiovascular disease.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-2.1 Describe the incidence, morbidity and mortality of cardiovascular disease. (C-1)
5-2.2 Discuss prevention strategies that may reduce the morbidity and mortality of cardiovascular disease. (C-1)
5-2.3 Identify the risk factors most predisposing to coronary artery disease. (C-1)
5-2.4 Describe the anatomy of the heart, including the position in the thoracic cavity, layers of the heart, chambers of the heart, and location and function of cardiac valves. (C-1)
5-2.5 Identify the major structures of the vascular system. (C-1)
5-2.8 Identify phases of the cardiac cycle. (C-1)
5-2.11 Identify the structure and course of all divisions and subdivisions of the cardiac conduction system. (C-1)
5-2.12 Identify and describe how the heart's pacemaking control, rate, and rhythm are determined. (C-2)

5-2.14 Define the functional properties of cardiac muscle. (C-1)
5-2.29 Identify and describe the components of the focused history as it relates to the patient with cardiovascular compromise. (C-1)
5-2.30 Explain the purpose of ECG monitoring. (C-1)
5-2.52 Identify the major mechanical, pharmacological and electrical therapeutic interventions. (C-3)
5-2.53 Based on field impressions, identify the need for rapid intervention for the patient in cardiovascular compromise. (C-3)
5-2.65 Describe the epidemiology, morbidity and mortality, and pathophysiology of angina pectoris. (C-1)
5-2.66 List and describe the assessment parameters to be evaluated in a patient with angina pectoris. (C-1)
5-2.67 Identify what is meant by the OPQRST of chest pain assessment. (C-3)
5-2.68 List other clinical conditions that may mimic signs and symptoms of coronary artery disease and angina pectoris. (C-1)
5-2.70 Identify the paramedic responsibilities associated with management of the patient with angina pectoris. (C-2)
5-2.72 Describe the epidemiology, morbidity and mortality of myocardial infarction. (C-1)
5-2.73 List the mechanisms by which an MI may be produced by traumatic and non-traumatic events. (C-2)
5-2.75 List and describe the assessment parameters to be evaluated in a patient with a suspected myocardial infarction. (C-1)
5-2.76 Identify the anticipated clinical presentation of a patient with a suspected acute myocardial infarction. (C-3)
5-2.77 Differentiate the characteristics of the pain/ discomfort occurring in angina pectoris and acute myocardial infarction. (C-2)
5-2.79 Identify the most common complications of an acute myocardial infarction. (C-3)
5-2.80 List the characteristics of a patient eligible for thrombolytic therapy. (C-2)
5-2.81 Describe the "window of opportunity" as it pertains to reperfusion of a myocardial injury or infarction. (C-3)
5-2.84 Describe the most commonly used cardiac drugs in terms of therapeutic effect and dosages, routes of administration, side effects and toxic effects. (C-3)

5-2.85 Describe the epidemiology, morbidity and mortality of heart failure. (C-1)
5-2.86 Define the principle causes and terminology associated with heart failure. (C-1)
5-2.87 Identify the factors that may precipitate or aggravate heart failure. (C-3)
5-2.88 Describe the physiological effects of heart failure. (C-2)
5-2.89 Define the term "acute pulmonary edema" and describe its relationship to left ventricular failure. (C-3)
5-2.91 Differentiate between early and late signs and symptoms of left ventricular failure and those of right ventricular failure. (C-3)
5-2.92 Explain the clinical significance of paroxysmal nocturnal dyspnea. (C-1)

5-2.93 Explain the clinical significance of edema of the extremities and sacrum. (C-1)
5-2.94 List the interventions prescribed for the patient in acute congestive heart failure. (C-2)
5-2.95 Describe the most commonly used pharmacological agents in the management of congestive heart failure in terms of therapeutic effect, dosages, routes of administration, side effects and toxic effects. (C-1)
5-2.121 Define the term "cardiac arrest". (C-1)
5-2.122 Identify the characteristics of patient population at risk for developing cardiac arrest from cardiac causes. (C-1)
5-2.123 Identify non-cardiac causes of cardiac arrest. (C-1)
5-2.124 Describe the arrhythmias seen in cardiac arrest. (C-3)
5-2.125 Identify the critical actions necessary in caring for the patient with cardiac arrest. (C-3)
5-2.128 Specify the methods of supporting the patient with a suspected ineffective implanted defibrillation device. (C-2)
5-2.129 Describe the most commonly used pharmacological agents in the managements of cardiac arrest in terms of therapeutic effects. (C-3)
5-2.130 Identify resuscitation. (C-1)
5-2.131 Identify circumstances and situations where resuscitation efforts would not be initiated. (C-1)
5-2.132 Identify and list the inclusion and exclusion criteria for termination of resuscitation efforts. (C-1)
5-2.133 Identify communication and documentation protocols with medical direction and law enforcement used for termination of resuscitation efforts. (C-1)
5-2.150 Based on the pathophysiology and clinical evaluation of the patient with chest pain, characterize the clinical problems according to their life-threatening potential. (C-3)
5-2.159 Based on the pathophysiology and clinical evaluation of the patient with chest pain, characterize the clinical problems according to their life-threatening potential. (C-3)
5-2.162 Develop, execute and evaluate a treatment plan based on the field impression for the patient with chest pain. (C-3)
5-2.165 Develop, execute and evaluate a treatment plan based on the field impression for the suspected myocardial infarction patient. (C-3)
5-2.168 Develop, execute, and evaluate a treatment plan based on the field impression for the heart failure patient. (C-3)
5-2.179 Synthesize assessment findings to formulate a rapid intervention for a patient in cardiac arrest. (C-3)
5-2.180 Synthesize assessment findings to formulate the termination of resuscitative efforts for a patient in cardiac arrest. (C-3)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-2.184 Value the sense of urgency for initial assessment and intervention in the patient with cardiac compromise. (A-3)
5-2.193 Value and defend the urgency in rapid determination of and rapid intervention of patients in cardiac arrest. (A-3)
5-2.194 Value and defend the possibility of termination of resuscitative efforts in the out-of-hospital setting. (A-3)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-2.201 Perform, document and communicate a cardiovascular assessment. (P-1)
5-2.205 Demonstrate satisfactory performance of psychomotor skills of basic and advanced life support techniques according to the current American Heart Association Standards and Guidelines, including: (P-3)
   a. Cardiopulmonary resuscitation
   b. Defibrillation
5-2.206 Complete a communication patch with medical direction and law enforcement used for termination of resuscitation efforts. (P-1)
5-2.207 Demonstrate how to evaluate major peripheral arterial pulses. (P-1)

UNIT TERMINAL OBJECTIVE

5-3 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the patient with a neurological problem.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-3.11 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for seizures. (C-1)
5-3.12 Discuss the pathophysiology of seizures. (C-1)
5-3.13 Discuss the assessment findings associated with seizures. (C-1)
5-3.14 Define seizure. (C-1)
5-3.15 Describe and differentiate the major types of seizures. (C-3)
5-3.16 List the most common causes of seizures. (C-1)
5-3.17 Describe the phases of a generalized seizure. (C-1)

AFFECTIVE OBJECTIVES

None identified for this unit.

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-3.82 Perform an appropriate assessment of a patient with seizures. (P-3)
5-3.83 Appropriately manage a patient with seizures, including the administration of diazepam or lorazepam. (P-3)

UNIT TERMINAL OBJECTIVE

5-4 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with an endocrine problem.

COGNITIVE OBJECTIVE

At the completion of this unit, the paramedic student will be able to:

5-4.8 Describe osmotic diuresis and its relationship to diabetes. (C-1)
5-4.9 Describe the pathophysiology of adult onset diabetes mellitus. (C-1)
5-4.10 Describe the pathophysiology of juvenile onset diabetes mellitus. (C-1)
5-4.11 Describe the effects of decreased levels of insulin on the body. (C-1)
5-4.12 Correlate abnormal findings in assessment with clinical significance in the patient with a diabetic emergency. (C-3)
5-4.13 Discuss the management of diabetic emergencies. (C-1)
5-4.14 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with a diabetic emergency. (C-3)
5-4.15 Differentiate between the pathophysiology of normal glucose metabolism and diabetic glucose metabolism. (C-3)
5-4.16 Describe the mechanism of ketone body formation and its relationship to ketoacidosis. (C-1)
5-4.17 Discuss the physiology of the excretion of potassium and ketone bodies by the kidneys. (C-1)
5-4.18 Describe the relationship of insulin to serum glucose levels. (C-1)
5-4.19 Describe the effects of decreased levels of insulin on the body. (C-1)
5-4.20 Describe the effects of increased serum glucose levels on the body. (C-1)
5-4.21 Discuss the pathophysiology of hypoglycemia. (C-1)
5-4.22 Discuss the utilization of glycogen by the human body as it relates to the pathophysiology of hypoglycemia. (C-3)
5-4.23 Describe the actions of epinephrine as it relates to the pathophysiology of hypoglycemia. (C-3)
5-4.24 Recognize the signs and symptoms of the patient with hypoglycemia. (C-1)
5-4.25 Describe the compensatory mechanisms utilized by the body to promote homeostasis relative to hypoglycemia. (C-1)
5-4.26 Describe the management of a responsive hypoglycemic patient. (C-1)
5-4.27 Correlate abnormal findings in assessment with clinical significance in the patient with hypoglycemia. (C-1)
5-4.28 Discuss the management of the hypoglycemic patient. (C-1)
5-4.29 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hypoglycemia. (C-3)
5-4.30 Discuss the pathophysiology of hyperglycemia. (C-1)
5-4.31 Recognize the signs and symptoms of the patient with hyperglycemia. (C-1)
5-4.32 Describe the management of hyperglycemia. (C-1)
5-4.33 Correlate abnormal findings in assessment with clinical significance in the patient with hyperglycemia. (C-3)
5-4.34 Discuss the management of the patient with hyperglycemia. (C-1)
5-4.35 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hyperglycemia. (C-3)
5-4.36 Discuss the pathophysiology of nonketotic hyperosmolar coma. (C-1)
5-4.37 Recognize the signs and symptoms of the patient with nonketotic hyperosmolar coma. (C-1)
5-4.38 Describe the management of nonketotic hyperosmolar coma. (C-1)
5-4.39 Correlate abnormal findings in assessment with clinical significance in the patient with nonketotic hyperosmolar coma. (C-3)

5-4.40 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with nonketotic hyperosmolar coma. (C-3)
5-4.41 Discuss the management of the patient with hyperglycemia. (C-1)
5-4.42 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hyperglycemia. (C-3)
5-4.43 Discuss the pathophysiology of diabetic ketoacidosis. (C-1)
5-4.44 Recognize the signs and symptoms of the patient with diabetic ketoacidosis. (C-1)
5-4.45 Describe the management of diabetic ketoacidosis. (C-1)
5-4.46 Correlate abnormal findings in assessment with clinical significance in the patient with diabetic ketoacidosis. (C-3)
5-4.47 Discuss the management of the patient with diabetic ketoacidosis. (C-1)
5-4.48 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with diabetic ketoacidosis. (C-3)

AFFECTIVE OBJECTIVES

None identified for this unit.

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

5-5 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with an allergic or anaphylactic reaction.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-5.1 Define allergic reaction. (C-1)
5-5.2 Define anaphylaxis. (C-1)
5-5.3 Describe the incidence, morbidity and mortality of anaphylaxis. (C-1)
5-5.4 Identify the risk factors most predisposing to anaphylaxis. (C-1)
5-5.5 Discuss the anatomy and physiology of the organs and structures related to anaphylaxis. (C-1)
5-5.6 Describe the prevention of anaphylaxis and appropriate patient education. (C-1)
5-5.7 Discuss the pathophysiology of allergy and anaphylaxis. (C-1)
5-5.8 Describe the common methods of entry of substances into the body. (C-1)
5-5.9 Define natural and acquired immunity. (C-1)
5-5.10 Define antigens and antibodies. (C-1)
5-5.11 List common antigens most frequently associated with anaphylaxis. (C-1)
5-5.12 Discuss the formation of antibodies in the body. (C-1)
5-5.13 Describe physical manifestations in anaphylaxis. (C-1)
5-5.14 Differentiate manifestations of an allergic reaction from anaphylaxis. (C-3)
5-5.15 Recognize the signs and symptoms related to anaphylaxis. (C-1)
5-5.16 Differentiate among the various treatment and pharmacological interventions used in the management of anaphylaxis. (C-3)
5-5.17 Integrate the pathophysiological principles of the patient with anaphylaxis. (C-3)
5-5.18 Correlate abnormal findings in assessment with the clinical significance in the patient with anaphylaxis. (C-3)
5-5.19 Develop a treatment plan based on field impression in the patient with allergic reaction and anaphylaxis. (C-3)

AFFECTIVE OBJECTIVES

None identified for this unit.

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

5-8 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the patient with a toxic exposure.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

5-8.40 Define poisoning by overdose. (C-1)
5-8.41 List the most common poisonings by overdose. (C-1)
5-8.42 Describe the pathophysiology of poisoning by overdose. (C-1)
5-8.43 Recognize the signs and symptoms related to the most common poisonings by overdose. (C-1)
5-8.44 Correlate the abnormal findings in assessment with the clinical significance in patients with the most common poisonings by overdose. (C-3)
5-8.45 Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by overdose. (C-3)
5-8.46 Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by overdose. (C-3)
5-8.47 Define drug abuse. (C-1)
5-8.48 Discuss the incidence of drug abuse in the United States. (C-1)
5-8.49 Define the following terms: (C-1)
- a. Substance or drug abuse
- b. Substance or drug dependence
- c. Tolerance
- d. Withdrawal
- e. Addiction

5-8.50 List the most commonly abused drugs (both by chemical name and street names). (C-1)
5-8.51 Describe the pathophysiology of commonly used drugs. (C-1)
5-8.52 Recognize the signs and symptoms related to the most commonly abused drugs. (C-1)
5-8.53 Correlate the abnormal findings in assessment with the clinical significance in patients using the most commonly abused drugs. (C-3)
5-8.54 Differentiate among the various treatments and pharmacological interventions in the management of the most commonly abused drugs. (C-3)
5-8.55 Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for patients using the most commonly abused drugs. (C-3)
5-8.56 List the clinical uses, street names, pharmacology, assessment finding and management for patient who have taken the following drugs or been exposed to the following substances: (C-1)
- a. Cocaine
- b. Marijuana and cannabis compounds
- c. Amphetamines and amphetamine-like drugs
- d. Barbiturates
- e. Sedative-hypnotics
- f. Cyanide
- g. Narcotics/ opiates
- h. Cardiac medications
- i. Caustics
- j. Common household substances
- k. Drugs abused for sexual purposes/ sexual gratification

l. Carbon monoxide
m. Alcohols
n. Hydrocarbons
o. Psychiatric medications
p. Newer anti-depressants and serotonin syndromes
q. Lithium
r. MAO inhibitors
s. Non-prescription pain medications
    1) Nonsteroidal anitinflammatory agents
    2) Salicylates
    3) Acetaminophen
t. Theophylline
u. Metals
v. Plants and mushrooms

5-8.62 Develop a patient management plan based on field impression in the patient exposed to a toxic substance. (C-3)

AFFECTIVE OBJECTIVES

None identified for this unit.

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

UNIT TERMINAL OBJECTIVE

7-1 At the completion of this unit, the paramedic student will be able to integrate the principles of assessment based management to perform an appropriate assessment and implement the management plan for patients with common complaints.

COGNITIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

7-1.1 Explain how effective assessment is critical to clinical decision making. (C-1)
7-1.2 Explain how the paramedic's attitude affects assessment and decision making. (C-1)
7-1.3 Explain how uncooperative patients affect assessment and decision making. (C-1)
7-1.4 Explain strategies to prevent labeling and tunnel vision. (C-1)
7-1.5 Develop strategies to decrease environmental distractions. (C-1)
7-1.6 Describe how manpower considerations and staffing configurations affect assessment and decision making. (C-1)
7-1.7 Synthesize concepts of scene management and choreography to simulated emergency calls. (C-3)
7-1.8 Explain the roles of the team leader and the patient care person. (C-1)
7-1.9 List and explain the rationale for carrying the essential patient care items. (C-3)
7-1.10 When given a simulated call, list the appropriate equipment to be taken to the patient. (C-2)
7-1.11 Explain the general approach to the emergency patient. (C-1)
7-1.12 Explain the general approach, patient assessment, differentials, and management priorities for patients with the following problems: (C-3)
- a. Chest pain
- b. Medical and traumatic cardiac arrest
- e. Altered mental status
- f. Dyspnea
- h. Seizures
- k. Trauma or multi trauma patients
- l. Allergic reactions
- o. Pediatric patients

7-1.13 Describe how to effectively communicate patient information face to face, over the telephone, by radio, and in writing. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

7-1.14 Appreciate the use of scenarios to develop high level clinical decision making skills. (A-2)
7-1.15 Defend the importance of considering differentials in patient care. (A-3)
7-1.16 Advocate and practice the process of complete patient assessment on all patients. (A-3)
7-1.17 Value the importance of presenting the patient accurately and clearly. (A-2)

PSYCHOMOTOR OBJECTIVES

At the completion of this unit, the paramedic student will be able to:

7-1.18 While serving as team leader, choreograph the EMS response team, perform a patient assessment, provide local/ regionally appropriate treatment, present cases verbally and in writing given a moulaged and programed simulated patient. (P-3)

7-1.19 While serving as team leader, assess a programmed patient or mannequin, consider differentials, make decisions relative to interventions and transportation, provide the interventions, patient packaging and transportation, work as a team and practice various roles for the following common emergencies: (P-3)

a. Chest pain
b. Cardiac Arrest
    1. Traumatic arrest
    2. Medical arrest
e. Altered mental status
f. Dyspnea
g. Syncope
h. Seizure
k. Trauma
    1. Isolated extremity fracture (tibia/ fibula or radius/ ulna)
    2. Femur fracture
    3. Shoulder dislocation
    4. Clavicular fracture or A-C separation
    5. Minor wound (no sutures required, sutures required, high risk wounds, with tendon and/ or nerve injury)
    6. Spine injury (no neurologic deficit, with neurologic deficit)
    7. Multiple trauma-blunt
    8. Penetrating trauma
    9. Impaled object
    10. Elderly fall
    11. Athletic injury
    12. Head injury (concussion, subdural/ epidural)
l. Allergic reactions/ bites/ envenomation
    1. Local allergic reaction
    2. Systemic allergic reaction
    3. Envenomation
o. Pediatric
    1. Respiratory distress
    2. Fever
    3. Seizures